Fact Sheet:

AUTOMATED STRATEGY TO MONITOR ARCHAEOLOGICAL SITES AND TO ASSESS NATIONAL REGISTER ELIGIBILITY

The Problem

Military training can and often does result in inadvertent adverse impacts to archaeological sites. Department of Defense (DOD) Cultural Resource managers are required to: (1) identify sites and other historic properties, (2) evaluate their eligibility for the National Register of Historic Places (NRHP), and (3) ensure that properties that are or may be eligible for the NRHP are not inadvertently demolished, substantially altered, or allowed to deteriorate significantly. Given the abundance of archaeological sites and limited funds, cultural resource managers must prioritize sites for NRHP assessment. Monitoring programs are needed to ensure that sites are not destroyed or severely impacted before their NRHP status can be determined. Site prioritization and monitoring efforts are complicated by the large number of known sites, the need to add newly recorded sites, and frequent changes in the risk to particular sites due to training and other installation actions.

The Technology

The U.S. Army Construction Engineering Research Laboratories (CERL) is developing an automated strategy to prioritize sites for NRHP eligibility assessment and schedule sites for monitoring. This strategy employs a user-friendly software application written for the Access database that allows

installation managers to update the site prioritization and monitoring schedule when sites are added or deleted or when risk factors change. Major steps in implementing this strategy are:

1. Develop an Access database of known sites.

2. Rank sites based on three key management criteria:

(a) Risk of future adverse impacts

(b) Probability of being eligible for the NRHP under Criterion D. Use available data to assess the nature of archaeological deposits, potential relevance to broad research questions, and effects of previous impacts on site integrity.

(c) Native American concerns. Assess the likelihood that a site contains human burials or could be viewed as a Sacred Site or Traditional Cultural Property.

A simple application written for Access will reprioritize the sites when data for the three criteria are updated, or when sites are added or deleted. Installation Cultural Resource managers can use the prioritization to select sites for NRHP assessment.

3. Develop an electronic form for use in site monitoring visits. This form will be tailored to the types of sites and impacts present at a particular installation. Data collected during site monitoring visits will be used to continually update the site database and site prioritization.

4. Develop an automated software application that will produce and continually update a schedule for visiting sites. Higher priority sites will be visited more frequently; lower priority sites will be monitored less frequently. Where there are too many sites in a priority category to visit each, the application will select a representative sample.

Benefits/Savings

A weighted prioritization of sites based on key management criteria will ensure that scarce funds available for NRHP assessment are directed to the most sensitive sites. The site monitoring program will allow the installation to identify changes in the risk of adverse impacts, thereby lessening the risk of training delays, litigation, need for expensive mitigation of adverse impacts, and/or

weakened relations with Native American groups, the State Historic Preservation Office, and other stakeholders. The automated site prioritization and monitoring schedule can be easily and repeatedly updated as conditions and installation priorities change.

Status

The automated strategy developed by CERL can be easily integrated into the Cultural Resource manager's business practices. To date, few installations have systematic approaches to site prioritization and comprehensive site monitoring programs. CERL can tailor the automated strategy described here to the particular needs of any DOD installation with a Cultural Resource Management staff.

Point of Contact

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